REMARKS

Status of Claims

Claims 1 – 63 were original in the application. Claims 3, 4, 12, 16, 19, 21, 30, 34, 36, 41, 42, 47, 51, 52, 56 and 63 have been canceled. Claims 5, 14, 15, 17, 22, 32, 33, 35, 37. 39, 40, 43 - 46, 48–50, 53 - 55 and 57 - 62 have been withdrawn. Claims 1, 13, 18, 20 and 31 have been amended herein. Thus, Claims 1, 2, 6 – 11, 13, 18, 20, 23 – 29, 31, and 38 are submitted for examination on the merits.

Rejection Pursuant to 35 USC 112

The Examiner has issued rejections of claims 2, 5, 19 and 22 but these rejections appear to be based on claim language which was in a preceding set of claims and have been previously amended so that the identified wording no longer exists in the listed claims. Clarification is requested.

Rejection Pursuant to 35 USC 103(a)

Claims 1 and 18 were rejected as obvious over Kageyama US Patent 6,681,157.

The Examiner admitted that **Kageyama** does not disclose storing events of the object in a history file with some events correlated with actions. The Examiner argues that **Kageyama** does teach taking suitable actions in response to specific events and concludes that it would have been common knowledge to store the specific events in a file to facilitate selecting an appropriate action for each specific event.

In furtherance of the interview granted on Dec. 13, 2005 the Examiner

acknowledged the Applicant's arguments presented in a courtesy draft of an Amendment of which the present paper is an official revised version. The Examiner has acknowledged in the record of interview that Applicants explain that at least three important features of the present application are novel over the cited prior art, namely:

(1) the network communication server can perform communication over a plurality of communication modes or data networks;

(2) the communication circuit installed in each object which can transmit and receive messages without interruption with the network communication server and directly between other ones of the plurality of objects.

(3) the historical files stores a chronology of historical events that are correlated with responsive function;

1. *Communication Over a Plurality of Communication Data Networks*

Paragraph [029] provides:

> [029] Communication component 10 includes a plurality of radio modems, here symbolically represented by modems 12, 14, and 16, communicating with different external wireless data networks (not shown), a frequency adjustable RF transmitter and receiver 20, a radio modem 18 for wireless LAN, a radio modem 22 for satellite communications, and any other devices (not shown) that can transmit digital data wirelessly now known or later devised. One example is the RIM902 radio modem manufactured by Research In Motion. The RIM902 radio modem runs in the Mobitex digital wireless communication network operated by Cingular Wireless Data (previously known as BellSouth Wireless Data). Other radio modems can be used for other types of communication networks, e.g., CDPD, GSM, SMS, CDMA, TDMA, and others. SLIP can utilize any wireless communication system, including satellite communications, and can switch from one network to another when the signal strength of the first network is below a threshold level. All modems 12, 14, 16, 18 and 22 and transceiver 20 communicate with a communication control module or CPU 13, which is operated under software control. The software control which is required to operate the communication control module or CPU 13 in combination with the other elements described above is conventional, and one example is shown and described in

connection with FIG. 3 below. However, it must be understood that firmware or logic controllers can be equivalently substituted for CPU 13 if desired."

Kageyama uses a simple communication method, i.e., VHF between the vehicle and the base station, and spread spectrum (SS) between vehicles. The claimed invention requires a multiple communication network to ensure continuous connection among vehicles, stationary objects, and base stations. In **Kageyama**, if the VHF or SS link is down, the system no longer works. In reality, VHF or SS for digital communication is never reliable. The claimed invention overcomes the shortcoming of **Kageyama's** communication method.

As set out in claim 1 a communication component is installed in each object to transmit without interruption and to receive messages without interruption. The processor automatically activates selected functions by means of communication without interruption through one or more of the plurality of data networks. Neither one of these features are disclosed, suggested or motivated from **Kageyama.**

Turn to claim 1 as amended. What is claimed is an apparatus for communication to a network through a plurality of different external wireless data networks comprising a communication component for uninterrupted communication to the network. The communication component comprises a plurality of wireless modems of the types described in paragraph [029]. Each modem communicates with different ones of the external wireless data networks.

Claim 18 has been amended in a manner consistent with the amendment of claim 1.

2. Communication Without Interruption with the Network Communication Server and Directly Between Other Ones of the Plurality of Objects

The communications component in each of the objects allows the second goal of communication without interruption with the network communication server and directly between other ones of the plurality of objects. Communication with the network server is automatically routed through the plurality of modems, each associated with a different data network. Similarly, each object can communicate directly with each other object by being automatically routed through the plurality of modems, each associated with a different data network.

Both claims 1 and 18 include the automatic routing described above.

3. Stored Historical Files of a Chronology of Historical Events Correlated with Responsive Function

A history file is neither useful nor necessary in **Kageyama** but is a must or necessary element in the present invention. This difference points to a fundamental difference between **Kageyama** and the claimed invention, which should be clearly understood.

Kageyama is directed to the prevention of interference between vehicles, manned or unmanned. Thus its key concern is the real time position and the possible position of each vehicle within the next time interval during which a collision or interference could occur. Storage in a history file is not included in **Kageyama** since there is no concern about the history in his teaching. **Kageyama** requires only forward

computation of a circle delineating the range of each vehicle's possible positions in the next time interval.

In contrast the claimed invention is directed to possible interactions between vehicles and also between vehicles and stationary objects. Thus, the claimed invention will need in some cases the history data to guide the vehicle's response. For instance, if a vehicle has already reached one destination and does not need to reach that same location again, then an approach to that location may cause a message from the base station to the vehicle to alter its current course since there is no longer a need to reach that same location again. The vehicle can remember where it has been spatially without regard to interference with other vehicles.

A device without storage is quite different from a device that requires storage, i.e., not only will their processes differ significantly; even the design of the printed circuit board will be quite different. For instance, many video cameras on freeways monitoring traffic do not have storage capabilities. Thus they are much cheaper and much less useful than the cameras that come with storage. Also, many GPS devices do not have storage capabilities and can only send real-time data to the server. Such devices without storage are different from ones with storage in both data processing and PCB design.

Turn now to claims 1 and 18 as amended. The claimed system as set out in claim 1 requires a processor activates responsive functions according to the corresponding object's current location and stores events of the corresponding object in a history file at least some of which events are correlated with contingent actions automatically undertaken with respect to the corresponding object. **The history file**

including events related solely to the location of the object without relationship to other ones of the plurality of objects. This is a concept which is entirely missing from **Kageyama** which is concerned only with the relationship between vehicles without regard to the absolute location of the vehicle.

Claim 18 as a method analog of claim 1 is distinguished on the same grounds as claim 1.

Pursuant to MPEP 2144.03 the applicant asserts that it is never appropriate to rely solely on "common knowledge" in the art without evidentiary support in the record, as the principal evidence upon which a rejection was based. *Zurko*, 258 F.3d at 1385, 59 USPQ2d at 1697. The Applicant challenges the factual assertions made with respect to claim 1 and 18 as not properly officially noticed or not properly based upon common knowledge, and requests support with adequate evidence. The inclusion in moving objects of a history file including events related solely to the location of the object without relationship to other ones of the plurality of objects is not commonly done. Consequently evidence must be cited against the additional design element in order to sustain an obviousness rejection.

Claims 6, 7, 23 and 24 were rejected as obvious over **Kageyama** in view of **Monroe** US Patent Application 2003/0067542. The Examiner cited **Monroe** for disclosing storing events of the object in a history file. The Examiner argued that it would be common knowledge to store events in the file history by category of the responsive action to be taken.

Monroe is an aircraft security system in which various security responses can be

provided to landed aircraft. The citation to paragraph [0118] is to a black box recorder on the aircraft for making a record of the security alarms, messages and responses and in no way is the archived history used for any purpose in an ongoing process. Like its flight recorder cousin the archived history is taken from the "wrecked plane" to see what electronic record was made of events already past about which nothing can be done. Thus, in **Monroe** the history file is only used for post-analysis of the vehicle's activity and the history of the vehicle does not affect the use or operation of the vehicle in any way. In the claimed invention, the inclusion of a history file and the transmission of the history file to the base station is for the purpose of affecting the operation of the vehicle. **Monroe** therefore does not add to **Kageyama** to result in a system or method of controlling movement of an isolated object or vehicle in relationship to events fixed in absolute space unrelated to other objects or vehicles as discussed above in connection with claims 1 and 18 on which claims 6, 7, 23 and 24 depend directly or indirectly.

Another important difference over **Kageyama** combined with **Monroe** is that neither **Kageyama** nor **Monroe** deals with the issue of communication connectivity as discussed above in connection with claims 1 and 18 on which claims 6, 7, 23 and 24 depend directly or indirectly. In **Kageyama**, if either VHF or SS goes down, the system as a whole goes down. In **Monroe** only one single communication mode is provided and when that communication is down, **Monroe's** method and system will never work. The claimed invention requires multiple communication protocols, and a method to ensure the continuous or uninterrupted connection among the objects.

Pursuant to MPEP 2144.03 the applicant asserts that it is never appropriate to rely solely on "common knowledge" in the art without evidentiary support in the record,

as the principal evidence upon which a rejection was based. *Zurko*, 258 F.3d at 1385, 59 USPQ2d at 1697. The Applicant challenges the factual assertions made with respect to claim 7 and 24 as not properly officially noticed or not properly based upon common knowledge, and requests support with adequate evidence. The storing of events in a file history by category of the responsive action to be taken is not commonly done. Consequently evidence must be cited against the additional design element in order to sustain an obviousness rejection.

Claims 2, 19 and 20 were rejected as obvious over **Kageyama** in view of **Soliman** US Patent 6,542,743. The Examiner cited **Soliman** for using only one satellite in a satellite location detection network. The Examiner argued that it would be common knowledge to combine a terrestrial location detection network with the satellite location detection network.

Soliman is directed to a distinct field of technology from that of the claimed invention. **Soliman** deals with the search of a base station from the cellular phone on CDMA network. GPS was mentioned but is not part of his system, but was only mentioned in passing in the prior art section where other location finding technologies were being generally discussed.

The applicant has cancelled claim 19 and combined it into claim 20. Further one GPS satellite cannot help to identify the location of the object. **Soliman** actually intends to use the CDMA network to help locate the cellular phone thereby reducing the search time for the base station. In **Soliman** the location is not defined by GPS. **Kageyama** and **Soliman** cannot be combined or integrated as they are of different fields and deal

with different situations. Being able to use a CDMA network to find a base station in a cellular network is of no help whatsoever in a location detection network of multiple moving objects. Fire and water could sooner be combined to make bricks.

In addition, **Soliman** is directed to one single communication network, CDMA, whereas the claimed invention of claims 2 and 20 which depend directly or indirectly on claims 1 and 18 requires multiple communication networks that may include CDMA, EDGE, iDen, RF, and others. Still further neither **Kageyama** nor **Solima** needs a history file, whereas the claimed invention of claims 2 and 20 which depend directly or indirectly on claims 1 and 18 requires the history file as part of the process.

Pursuant to MPEP 2144.03 the applicant asserts that it is never appropriate to rely solely on "common knowledge" in the art without evidentiary support in the record, as the principal evidence upon which a rejection was based. *Zurko*, 258 F.3d at 1385, 59 USPQ2d at 1697. The Applicant challenges the factual assertions made with respect to claims 2 and 20 as not properly officially noticed or not properly based upon common knowledge, and requests support with adequate evidence. The combination of one satellite in a location detection network which by itself is incapable of determining location with a terrestrial location detection network to determine location is not commonly done, and consequently evidence must be cited against the additional design element in order to sustain an obviousness rejection.

Claims 8 – 11 and 25 – 29 were rejected as obvious over **Kageyama** in view of **Monroe** further in view of **Fera** US Patent 6,338,152 and **Ono** US Patent 6,466,950. The Examiner cited **Fera** for storing messages and tagging files to be deleted. The

Examiner cited **Ono** for clearing data after transmission to a server.

Claims 8 – 11 and 25 – 29 depend directly or indirectly on claims 1 or 18 and are allowable therewith. The references are cited to show network tasks in isolation, which are not related in any sense to the claimed combination or context. The secondary references are an aggregation of unconnected technical features leading to nowhere, each showing part of technical feature without contextual relationship to the identified quasi-related technical feature in the claims. This is akin to saying that computers are known to be used to communicate and have memory, so that any conceivable combination of memory in a computerized computer system is inferable from the art. However, this would not be sufficient to disclose how a computer controlled vehicle could safely travel from Los Angeles to New York without mishap.

Monroe does not teach storing messages in a history file categorized by correlated contingent actions. Paragraph [0086] of **Monroe** refers to route information pertaining to a route to a distressed landed aircraft being archived in a computer network system and transmitted to control centers. This is not connected in any manner with movement of an object relative to fixed objects in space, e.g. given the travel history the school bus is about to cross the railroad tracks and needs to stop before doing so. The storing of route information in **Monroe** is a disconnected technical feature having no relevance to the travel history of a moving object, to which claims 8 – 11 and 25 – 29 are directed.

Paragraph [0123] of **Monroe** refers to keep out zones for vehicles relative to aircraft. This is no more than collision avoidance and refers to static zones on a tarmac

on which the vehicles and aircraft move like chess pieces. It has nothing to do with the travel history of a moving object, to which claims 8 – 11 and 25 – 29 are directed.

Paragraph [0109] of **Monroe** fails to refer to any history file of any kind for any purpose. The sending of event information between devices is an unconnected technical task, which means nothing in isolation. It is admitted that it is well known to send event information from a point A to a point B, but this has nothing to do with the use of a travel history of a moving object, to which claims 8 – 11 and 25 – 29 are directed.

Fera discloses downloading a file from a locomotive to a server and to which locomotive instructions are sent to delete files. What files are to be deleted are not specifically mentioned. There is no mention of received or sent messages in any file stored in the locomotive. The file in question appears to relate to operational details of the locomotive and is called an "incident log", but is not related to its travel history in the sense claimed by Claims 8 – 11 and 25 – 29. Having a black box recorder on a locomotive is a disconnected fact unrelated to the combination in the claims.

Fera teaches a method for data communication management in an unusual networked environment, which is quite different from the communication in a wireless environment. The wired network in **Fera** assumes the wire connection is stable and reliable, and problems with communication are due to malfunctions of machines. In the environment of wireless communication of the claimed invention, the connection of any wireless network is always unstable and that's why the multiple communication networks become significant in the claimed invention. Neither **Kageyama** nor **Fera** deals with the communication issue as discussed above in connection with claims 1 and

18. Even the combination of **Kageyama** and **Fera** still will not resolve the issue of unstable connectivity. Furthermore, neither **Kageyama** nor **Fera** uses any history file, thus the combination of **Kageyama** and **Fera** stills does not deal with the need of the claimed invention to use a history file during the operation as discussed above in connection with claims 1 and 18.

Likewise, **Ono** deals with the log management in an unusual networked environment. The claimed invention may or may not use a method like **Ono's** to update the history file. **Ono** is directed to a database systems in which data logs have to be updated and in the course of updating the data logs mention is made that when there is no terminal in the system to which the update log 211 can be sent, then the update log 211 can be deleted. This is nothing more than an unconnected fact that one can delete files in computer systems. It has no relevance to the management of a travel history file in a network of moving objects. Updating other databases in the system of the claimed invention is irrelevant to the how the claimed travel history works.

A combination of **Kageyama** and **Ono** does not deal with the issues relevant to the claimed invention as discussed above in connection with claims 1 and 18.

Claims 13, 31, 38 and 44 were rejected as obvious over **Kageyama** in view of **Ito** US Patent Application 2001/0001763 and **Sheynblat** US Patent Application 2002/0171581. The Examiner cited **Ito** for selecting a best signal from a plurality of input signals. **Sheynblat** is cited for showing the use of modems for exchanging information between devices in different networks.

As above the secondary references here are an aggregation of unconnected technical features leading to nowhere, each showing part of a technical feature without contextual relationship to the identified quasi-related technical feature in the claims. Paragraphs [044] – [0046] describe the selection of the most geographically accurate signal from a GPS satellite and a handy-phone base station.

What is the subject matter of claims 13 and 31 is not which signal provides a more accurate geographic determination which is the issue in **Ito**, namely the certainty detected by the GPS certainty detector unit 8, but which communication channel provides the best quality with the least error rate. Knowing where you are and being able to clearly or reliably communicate with others are two entirely different considerations with dramatically different consequences in **Ito** verses in the claimed combination. In Ito the two signals may be a equal clarity or reliability, but one is chosen as giving the more certain position. **Ito** assumes that both signals are received so that a choice can be made. The claimed invention is concerned with always having a signal in an unreliable communication environment.

Sheynblat determines the location of a client (mobile unit) and then distributes the proper information to the client through the Internet, or, World-Wide Web using modems as the communication links. It is stipulated that modems are well known two way communication devices. Claim 13 depends on claim 1 and requires the communication circuit in each object to comprise a frequency adjustable transceiver in each object coupled to the wireless modems and satellite modem. The processor in each object is coupled to and controls the frequency adjustable transceiver in the corresponding object to select a best communication signal from the wireless modems.

If the best communication signal from the wireless modems fails to satisfy a predetermined threshold, then the processor controls the frequency adjustable transceiver to select a communication signal from the satellite modem.

No such processor and transceiver combination is found in **Sheynblat.**

Sheynblat does not teach how to use multiple wireless communication means to distribute such information to the client, nor does it utilize any of the history file to adjust the message to the client as discussed in connection with claims 1 and 18. In **Sheynblat** all the base station does is to pass information collected on the base station to the client, depending on the current position of the client. Unlike the claimed invention where the mobile unit is part of the system and it may alter its course due to its location, **Sheynblat** does not affect the mobile unit automatically.

While in the claimed invention, the key processes are in the mobile unit, **Sheynblat** deals with the processes in the base station. Furthermore, **Sheynblat** runs on a single wireless communication network and does not teach the processing over multiple wireless communication networks as discussed in connection with claims 1 and 18.

Applicant respectfully requests advancement of the claims to allowance.

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on December 15, 2005 by

Signature Eric Hoover

December 15, 2005

Respectfully submitted,

Daniel L. Dawes, Esq.
Registration No. 27,123
Myers Dawes Andras & Sherman LLP
19900 MacArthur Blvd., 11th Floor
Irvine, CA 92612
(949) 223-9600